Paper No. 43

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte PER TOMAS ANDREASON

Appeal No. 2002-1997
Application No. 08/828,549

ON BRIEF[1]

Before THOMAS, HAIRSTON, and BARRY, *Administrative Patent Judges*.
BARRY, *Administrative Patent Judge*.

DECISION ON APPEAL

A patent examiner rejected claims 1-28. The appellant appeals therefrom under 35 U.S.C. § 134(a). We reverse.

BACKGROUND

The invention at issue on appeal connects a computer to a computer network via a telephone exchange. (Spec. at 1.) Conventionally, when someone using a computer at home wants access to his company's Intranet, he connects thereto via an Internet Service Provider ("ISP"). (Appeal Br. at 2.)

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[1]An oral hearing was waived. (Paper No. 42.)

The use of a faulty modem by the ISP, however, can impede such a connection. Because the ISP may be unaware of the fault until it receives complaints from its users, the faulty modem can be in use for a long time. (*Id.* at 3.) Furthermore, it may remain in use until repaired or replaced. (Spec. at 2.)

In contrast, the invention uses a telephone exchange, such as a private branch exchange ("PBX"), to connect a remote computer to an Intranet without an ISP. (Appeal Br. at 3.) More specifically, the remote computer 48 is connected via a public switched telephone network ("PSTN") 12 to a PBX 10. An incoming call from the computer 48 is routed via the PBX's switch core 40 and network connector 44 to an Intranet 14.

A further understanding of the invention can be achieved by reading the following claim.

> 18. Method of connecting a computer to a computer network via a telephone exchange comprising the steps:
>
> receiving, in the telephone exchange, data signals sent from the computer, wherein the data signals are sent from the computer over a public switched telephone network;
>
> converting, by a signal processing means in a network connection device, the signal structure of the data signals to data packets having a signal structure suitable for data communication;
>
> supplying these data packets to the computer network;

> monitoring, by a local control means in the network connection device in the telephone exchange, every connection set up between a computer and the computer network.

Claims 17 and 18 stand rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No.5,946,386 ("Rogers"). Claims 1-28 stand rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,610,910 ("Focsaneanu").

OPINION

Our opinion addresses the rejections in the following order:

- anticipation rejection of claims 17 and 18 over Rogers
- obviousness rejection of claims 1-28 over Focsaneanu.

Anticipation Rejection of Claims 17 and 18 over Rogers

Rather than reiterate the positions of the examiner or the appellant *in toto*, we address three points of contention therebetween. First, the examiner alleges, "Rogers teaches a telephone system comprising an exchange 104 . . . a network connection device (203 or 206) in said exchange, that is connected between said switch core and said computer network (Fig. 2). . . ." (Examiner's Answer at 8.) The appellant argues, "the CO trunk interface 203 is connected between the CO trunks 202 and the circuit switches 204, and not between the circuit switches 204 and the computer network. . . ." (Appeal Br. at 26.) He further argues, "the PBX trunk interface is connected between

the PBX trunks 205 and the circuit switches 204, and not between the circuit switches 204 and the computer network. . . ." (*Id.* at 27.)

"Analysis begins with a key legal question -- *what* is the invention *claimed*?" *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1567, 1 USPQ2d 1593, 1597 (Fed. Cir. 1987). Here, claim 17 specifies in pertinent part the following limitations: "at least one network connection device, in said exchange, that is connected between the switch core and the computer network. . . ." Accordingly, the limitations require a network connection device located inside an exchange and connected between the core of a switch and a computer network.

"Having construed the claim limitations at issue, we now compare the claims to the prior art to determine if the prior art anticipates those claims." *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349, 64 USPQ2d 1202, 1206 (Fed. Cir. 2002). "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (citing *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 715, 223 USPQ 1264, 1270 (Fed. Cir. 1984); *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548, 220 USPQ 193, 198 (Fed. Cir. 1983); *Kalman v. Kimberly-Clark Corp.*, 713 F.2d760, 771,

218 USPQ 781, 789 (Fed. Cir. 1983)). "[A]bsence from the reference of any claimed element negates anticipation." *Kloster Speedsteel AB v. Crucible, Inc.,* 793 F.2d 1565, 1571, 230 USPQ 81, 84 (Fed. Cir. 1986).

Here, neither Rogers' CO trunk interface 203 nor its PBX trunk interface 206 is connected between the core of a switch and a computer network. To the contrary, the Figure cited by the examiner shows that the CO trunk interface 203 is connected between CO trunks 202, circuit switches 204, and computer signal busses 211 inside a Call Management Computer. Figure 2 also shows that the PBX trunk interface 206 is connected between PBX trunks 205, additional circuit switches 204, and the computer signal busses 211 inside the Call Management Computer. The following passage of the reference confirms these showings.

> The telephony subsystem ties together the CO trunk 102 and PBX trunks 105 through their specific trunk interfaces 203, 206 and circuit switches 204 to the telephony signal buses 210. Each of the trunk interfaces 203, 206 is also coupled to the computer data bus 211, through which the computer processors 201 receive information and provide control and data to both the CO trunk interface 203 and its circuit switches 204.

Col. 9, ll. 34-41.

Second, the examiner alleges, "Rogers teaches convert [sic] by a signal processing means in a network connection device (203 and/or 206) have an assigned

DSP 208 for each call (col 10/lines 12-30) . . . ." (Examiner's Answer at 12.) The appellant argues, "*Rogers* does not disclose that CO trunk interface 203 and/or PBX trunk interface 206 includes DSP processors 208 as asserted. . . ." (Appeal Br. at 28.)

Claim 17 specifies in pertinent part the following limitations: "the network connection device comprises a signal processing means. . . ." Similarly, claim 18 specifies in pertinent part the following limitations: "a signal processing means in a network connection device. . . ." Accordingly, both claims require a signal processor located inside the aforementioned network connection device.

Turning to Rogers, the reference's DSP Processors 208 are located neither in Rogers' CO trunk interface 203 nor in its PBX trunk interface 206. To the contrary, Figure 2 shows that the DSP Processors 208 are located apart from both interfaces.

Third, the examiner asserts, "Rogers teaches . . . said 208 configured to convert the signal structure of data signal received for said computer (col 15/lines 6-9) . . . ." (Examiner's Answer at 12.) The appellant argues, "the protocol and signaling conversion disclosed by *Rogers* is for converting 'new types of CO trunk/circuits 102 with their new signaling requirements to older PBX trunk/circuits 105 with their older signaling requirements' and not converting, by a signal processing means in a network

connection device, the signal structure of the data signals to data packets having a signal structure suitable for data communication. . . ." (Appeal Br. at 29.)

Claim 17 specifies in pertinent part the following limitations: that the aforementioned "signal processing means . . . is arranged to receive data packets having a signal structure suitable for data communication from the computer network, to convert the signal structure of these data packets to a signal structure suitable for communication of data. . . ." Similarly, claim 18 specifies in pertinent part the following limitations: "converting, by a signal processing means in a network connection device, the signal structure of the data signals to data packets having a signal structure suitable for data communication. . . ." Accordingly, both claims require that the aforementioned signal processor converts the signal structure of data signals to data packets having a signal structure suitable for data communication.

Turning to Rogers, the reference's DSP Processors 208 do not convert the signal structure of data signals to data packets having a signal structure suitable for data communication. To the contrary, the Processors "provide[] 'Conversion' of the new types of CO trunk/circuits 102 with their new signaling requirements to older PBX trunk/circuits 105 with their older signaling requirements." Col. 17, ll. 28-31.

The absence of a teaching of a network connection device located inside an exchange and connected between the core of a switch and a computer network and a signal processor located inside the network connection device that converts the signal structure of data signals to data packets having a signal structure suitable for data communication negate anticipation. Therefore, we reverse the anticipation rejection of claims 17 and 18.

Obviousness Rejection of Claims 1-28 over Focsaneanu

We address two points of contention between the examiner and the appellant. First, the examiner alleges, "Figs. 7-8 illustrates a local (210) access service provider that comprises a PSTN (col 10/line 10-39). . . ." (Appeal Br. at 9.) The appellant argues, "[t]here in nothing in *Focsaneanu* which would have indicated that there would be a switch, much less a PSTN, in the local access 210." (Reply Br. at 7.)

Independent claims 1, 14, and 15 specify in pertinent part the following limitations: "connection of a computer to a computer network via a telecommunication network. . . ." Similarly, independent claim 17 specifies in pertinent part the following limitations: "connection of a computer to a computer network via a public switched telephone network. . . ." Also similarly, independent claim 18 specifies in pertinent part the following limitations: "data signals are sent from the computer over a public

switched telephone network. . . ." Accordingly, the independent claims require connecting a computer to a computer network via a telecommunication network.

Having determined what subject matter is being claimed, the next inquiry is whether the subject matter would have been obvious. "In rejecting claims under 35 U.S.C. Section 103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness." *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993)(citing *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992)). "'A *prima facie* case of obviousness is established when the teachings from the prior art itself would . . . have suggested the claimed subject matter to a person of ordinary skill in the art.'" *In re Bell*, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993) (quoting *In re Rinehart*, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976)).

Here, although Focsaneanu discloses that "[e]ach [of its] CPE connector[s] operates with the access module 208 through its local access 210," col. 7, ll. 33-34, the local access 210 does not comprise a PSTN. To the contrary, "[t]he local access consists generally of a pair of twisted copper wires, although many other local access facilities are available for different bandwidths, such as wireless, fiber optics, coax cable, etc." *Id.* at ll. 64-67.

Second, the examiner asserts that Focsaneanu's "network connection device (252) device performs protocol conversion (i.e. convert the data packet signal structure of data signals from one structure to another). . . ." (Examiner's Answer at 4.) The appellant argues, "performing protocol conversion by controller 252 is not the equivalent to 'signal processing means that is arranged to *convert the signal structure* of data signals, received from a computer via the telecommunication network and the switch core, to data packets having a signal structure suitable for data communication. . . .'" (Reply Br. at 5-6.)

As explained regarding the anticipation rejection, independent claims 17 and 18 require converting the signal structure of data signals to data packets having a signal structure suitable for data communication. For their part, independent claims 1, 14, and 15 specify the same requirement.

Turning to Focsaneanu, although its "controller performs address conversion, protocol conversion, rerouting etc.," col. 8, ll. 21-22, the controller 252 does not convert the signal structure of data signals to data packets having a signal structure suitable for data communication. To the contrary, a separate element "packetizes" data. Specifically, "packetized data [are] formed at PAD 254 (packet assembly/ disassembly). . . ." *Id.* at ll. 22-23.

Absent a teaching or suggestion of connecting a computer to a computer network via a telecommunication network and converting the signal structure of data signals to data packets having a signal structure suitable for data communication, we are unpersuaded of a *prima facie* case of obviousness. Therefore, we reverse the obviousness rejection of claim 1 and claims 2-13, which depend therefrom; of claim 14; of claim 15 and claim 16, which depends therefrom; of claim 17; and of claim 18 and claims 19-28, which depend therefrom.

CONCLUSION

In summary, the rejection of claims 17 and 18 under § 102(e) is reversed. The rejection of claims 1-28 under § 103(a) is also reversed.

REVERSED

JAMES D. THOMAS Administrative Patent Judge	)
KENNETH W. HAIRSTON Administrative Patent Judge	) BOARD OF PATENT) APPEALS) AND) INTERFERENCES
LANCE LEONARD BARRY Administrative Patent Judge	)

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